

NANTWICH RURAL DISTRICT.

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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1906,

BY

R. T. TURNER, M.D., Ch. B. (Vict.,) Medical Officer of Health.

To which are appended the REPORTS of

MR. J. A. DAVENPORT, Surveyor, Inspector of Canal Boats,
and of Dairies and Cowsheds ;

AND OF

MR. JOHN STOREY, Inspector of Nuisances.

F. POOLEY & Co., Printers, Mill Street, Nantwich.



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Nantwich Rural District.

Medical Officer of Health—R. T. TURNER.
 Population at Census, 1901—23,196.
 Estimated population at middle of 1906—23,612.
 Area in Acres, 98,458.
 Birth-rate per 1,000 living—27·3.
 Death-rate per 1,000 living—14·2.
 Death-rate from principal Zymotic diseases—1·3.
 Deaths under one year per 1,000 births—103.

AREA AND POPULATION.—The whole district has been divided for registration purposes into four sub-districts. These are as follows:—

- 1.—CREWE, having an area of 31,145 acres, and an estimated population of 11,400. It includes Batherton, Barthomley, Basford, Blakenhall, Bridgemere, Checkley-cum-Wrinehill, Chorlton, Crewe, Doddington, Haslington, Hatherton, Hough, Hunsterson, Lea, Rope, Stapeley, Walgherton, Warmingham, Weston, Willaston, and Wybunbury, and parts of Church Coppenhall, Shavington-cum-Gresty, and Wistaston.
- 2.—NANTWICH, with an area of 21,300 acres, and an estimated population of 3,468, includes Acton, Aston-juxta-Mondrum, Austerson, Baddington, Brindley, Burland, Cholmondeston, Coole Pilate, Edleston, Faddiley, Henhull, Hurleston, Leighton, Minshull Vernon, Poole, Stoke, Woolstanwood, and Worleston.
- 3.—BUNBURY has an area of 20,979 acres, and an estimated population of 4,122. It comprises the townships of Alraham, Bickerton, Bulkeley, Bunbury, Calveley, Cholmondeley, Church Minshull, Egerton, Haughton, Peckforton, Ridley, Spurstow, Wardle, and Wettenhall.
- 4.—WRENBURY, which has an area of 25,034 acres, and an estimated population of 4,622. It includes Audlem, Baddiley, Broomhall, Buerton, Chorley, Dodcott-cum-Wilkesley, Hankelew, Newhall, Sound, Woodcott, and Wrenbury-cum-Frith.

The Census returns for the Rural District were as follows:—

	Males		Females.		Totals.
Crewe.....	5,478	...	5,506	...	10,984
Nantwich	1,763	...	1,705	...	3,468
Bunbury.....	2,052	...	2,070	...	4,122
Wrenbury	2,278	...	2,344	...	4,622
	<hr/>		<hr/>		<hr/>
	11,571	...	11,625	...	23,196
	<hr/>		<hr/>		<hr/>

In calculating the death-rates of the district, all deaths of non-residents dying in the Nantwich Workhouse Infirmary have been excluded, as also have two deaths of non-residents dying in private houses in the district. All known deaths of residents of the district dying outside its boundaries have been included, and all deaths of residents of the district dying in public institutions have been referred to their proper sub-districts.

The birth-rates for the four sub-districts were respectively 29·5, 25·9, 24·9, and 24·6.

The death-rates for the same four sub-districts were respectively 14·3, 14·7, 13·8, and 14·0.

The *death-rate* was higher by 2·1 than in 1905. A comparative statement of the death-rates of the district for the past ten years will be found in Table I attached to this report.

The *birth-rate* was 2·2 higher than in 1905. The percentage of illegitimate births was 5·7.

Infant Mortality.—Sixty-seven of the deaths registered as occurring among residents of the Rural District were those of children under one year of age. The numbers for the previous ten years were respectively 77, 90, 64, 68, 56, 44, 56, 53, 59, and 52. An analysis of the causes of and ages at death will be found in Table V attached to this report. It will be seen from this that the large number of fourteen deaths were ascribed to premature birth, whereas the number of such births last year was only three, thus accounting to a large extent for the apparent increase in infantile mortality. Considering that the summer of 1906 was a hot, and dry one, I do not think that the infantile mortality was excessive as such mortality goes, though it cannot be contended that the death before it reaches the age of a year of one child in every ten is anything but deplorable.

Deaths from Zymotic Disease :—

(a) SCARLET FEVER.—This disease was responsible for one death, that of a young child from Weston, who died at the Isolation Hospital in December.

(b) DIPHTHERIA.—Three deaths were caused by this disease. They were as follows :—on March 25th, a man aged 46 years, at Wybunbury ; on March 21st, a man aged 36 years, at Lea ; on July 18th, a child aged 9 years, at Warmingham.

(c) ENTERIC FEVER.—Two deaths were registered as being due to this disease, viz :—one, a child aged 4 years, at Shavington on January 16th, and one, aged 15 years, at Buerton on March 31st.

(d) DIARRHŒA.—This disease was responsible for fourteen deaths, of which eight were those of children under one year old. The deaths occurred at Audlem, Wrenbury, Walgherton, Shavington, Weston, Willaston, Warmingham, Stapeley, and Church Minshull.

(e) ERYSIPELAS.—One death was ascribed to this disease, that of a child aged 11 months, who died at Haslington on January 16th.

(f) WHOOPING COUGH.—Ten deaths were ascribed to this disease. Six were those of children under one year of age and four those of children over one and under five years of age. The deaths occurred as follows :—one at Barthomley in January, one at Baddiley in March, one at Wardle in June, one at Dodcott in July, one at Buerton in July, three at Audlem in July, and one at Weston in December.

(g) PUERPERAL FEVER.—One death only was reported. It occurred at Alvaston in January.

Phthisis.—Seventeen deaths were ascribed to this disease. This is equivalent to a death-rate of 0·7 per 1,000. The rates for the previous six years were respectively 0·75, 0·6, 0·38, 0·3, 0·6, and 0·8.

Other Tubercular Diseases.—Six deaths were ascribed to this group of diseases.

Lung Diseases other than Phthisis.—This group of diseases caused the deaths of forty-seven persons during the year. This is equivalent to a death-rate of 1·9 per 1,000.

Heart Diseases.—Thirty-two deaths were ascribed to this group of diseases. This gives a death-rate of 1·3 per 1,000.

Inquests.—Inquests were held concerning the deaths of seventeen persons belonging to the Rural District. The causes of death as returned by the Coroner were as follows :—

Natural causes.....	2 cases
Improper Feeding	1 case
Convulsions	1 „
Pneumonia	1 „
Gun-shot	2 cases
Burns.....	3 „
Drowned	4 „
Suffocation	1 case
Heart Disease	1 „
Epilepsy	1 „
Total.....	17 cases

Uncertified Deaths.—Two deaths were entered in the Register without the certificate of a Registered Medical Practitioner, or of the Coroner after Inquest.

The causes of death as entered were :—

Bronchitis.....	1 case
Senile Decay	1 „
Total.....	2 cases

Sickness.—During the year 101 cases of infectious disease were reported to the Medical Officer of Health. They were as follows :

Scarlet Fever	39 cases
Diphtheria	41 „
Enteric Fever	7 cases
Puerperal Fever	1 case
Erysipelas.....	13 cases
Total.....	101 cases

The following Table shows at a glance the state of the District as regards Infectious Disease, and the deaths resulting therefrom for the past ten years.

NOTIFICATIONS AND DEATHS FROM NOTIFIABLE DISEASES, during the years 1897—1906.

CASES NOTIFIED.									DEATHS.							
YEAR.	Smallpox	Scarlet Fever	Diphtheria	Membr- nous Group	Enteric Fever	Puerperal Fever	Erysipelas	Total An- nual No- tifications	Smallpox	Scarlet Fever	Diphtheria	Membr- nous Group	Enteric Fever	Puerperal Fever	Erysipelas	TOTAL DEATHS
1897.....	...	117	11	...	4	1	10	143	...	4	3	...	1	...	2	10
1898.....	...	94	16	4	14	...	14	142	...	4	1	1	5	...	1	12
1899.....	...	59	27	...	11	2	14	113	...	2	4	...	...	1	...	7
1900.....	...	164	9	3	9	1	15	201	...	5	2	1	2	...	...	10
1901.....	...	79	30	1	7	5	6	128	...	1	8	1	2	2	...	14
1902.....	2	20	73	...	4	2	9	110	...	...	13	...	1	...	...	14
1903... ..	2	33	24	1	4	...	10	74	...	...	5	1	2	...	...	8
1904	1	79	5	...	4	3	18	110	...	...	...	...	1	1	2	4
1905.....	...	123	14	2	3	2	11	155	...	1	4	...	...	1	...	6
1906.....	...	39	41	...	7	1	13	101	...	1	3	...	2	1	...	7

(a) SCARLET FEVER.—Thirty-nine cases of this disease were reported; sixteen townships of the District were affected. In no case with the exception of Weston was there any tendency to epidemic prevalence. In this village seven cases occurred within a few days of each other. I had practically all the infected persons removed to the Isolation Hospital, and by this means succeeded in stamping out the epidemic.

The following Table gives in a concise form an account of the Notifications of Scarlet Fever.

SCARLET FEVER NOTIFICATIONS, 1906.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sep.	Oct.	Nov.	Dec.	TOTALS.
Acton .....	...	...	...	...	...	1	...	...	...	...	...	...	1
Audlem	2	...	...	1	...	1	...	...	...	...	...	...	4
Bunbury .....	...	...	...	...	1	...	...	...	...	...	...	...	1
Barthomley .....	...	...	...	...	3	...	...	...	...	...	...	...	3
Church Coppenhall..	...	...	...	...	3	...	...	2	...	1	...	...	6
Church Minshull ...	...	...	...	...	...	...	...	2	1	...	...	...	3
Haslington	1	...	...	...	...	...	...	...	2	...	...	...	3
Hatherton .....	...	...	...	...	...	...	...	...	1	...	...	...	1
Hankelow .....	...	...	...	...	...	...	...	1	...	...	...	...	1
Newhall .....	...	...	...	...	...	...	...	...	...	...	...	1	1
Poole .....	...	...	...	...	...	...	...	1	...	...	...	...	1
Shavington	1	...	...	...	1	...	...	...	1	...	...	...	3
Stoke .....	...	...	1	...	...	...	...	...	...	...	...	...	1
Weston .....	...	...	...	...	...	...	...	...	...	...	7	...	7
Willaston .....	...	...	...	...	...	...	...	...	...	...	...	1	1
Wybunbury	2	...	...	...	...	...	...	...	...	...	...	...	2
Totals	6	...	1	1	8	2	...	6	5	1	7	2	39

(b) DIPHTHERIA.—Forty-one cases were reported during the year. In March there were cases at Crewe, Lea, and Wybunbury. There were cases at Willaston during May, July, August, and September. There were cases at Hatherton, in September; Weston in November; and at Wybunbury and Walgherton in December. There were also two cases at Warmingham during June and July. The cases above mentioned, with the exception of those at Willaston, were sporadic cases and showed no sign of epidemic prevalence. In the case of Willaston, however, there was, on two occasions, marked tendency to epidemicity. On May 4th, the first case was reported from Willaston. It was a child attending Wistaston School. This was followed on May 7th by another, and on May 10th and 13th by two others. On May 14th and 15th two other cases were reported. It was noteworthy, that all these cases occurred in children attending Wistaston School. I decided at once to close the School for a month, and to have the School disinfected. This was apparently effective in stopping the epidemic; no other case occurring until July 30th, when one case was reported. On August 15th, another case was notified; on August 20th, two cases; on August 21st, one case; on August 25th, one case; on August 26th, three cases; on August 27th and 29th, one case each; on September 2nd, one case; followed by one case each on September 9th, and October 6th, when the last case occurred. During the first part of this second outbreak, it was apparent that the cases were originating in the Infant Department of the Wistaston School, every one of the cases occurring in children attending that Department. I decided to close this Department, and on the day I did so, examined all the children in attendance. I found no case of visible diphtheria, but found two children with slight discharge from the nose. Specimens were obtained from these for bacteriological examination, and one was found to be infected with the bacillus of diphtheria. This child was isolated for three weeks. Unfortunately, the closing of the Infant Department did not suffice to stop the epidemic, cases still continuing to occur, so I again examined the children still in attendance, and again found no apparent diphtheria, but found three children with slight nasal discharge. Specimens of this discharge were examined bacteriologically, and one was found to contain the diphtheria bacillus. It is noteworthy, that none of these children

with nasal discharge had complained of being ill. These cases are an excellent illustration of the manner in which diphtheria may be carried in the noses and throats of persons who have suffered no ill effects themselves, and yet may be a source of the greatest danger to persons with whom they may come into contact. It is probable that diphtheria is thus, in many cases, carried from place to place, and that thus many apparently inexplicable outbreaks may be caused. I am certainly of opinion, that diphtheria is, to a large extent, a disease caused by personal infection rather than by insanitary drains.

I again closed the Wistaston School for five weeks, and had it disinfected by free chlorine gas (produced by the action of sulphuric acid on Chlorinated Lime) followed by a careful washing of floors, desks, etc., and limewashing of the walls. This succeeded in stamping out the disease.

My thanks are due to Mr. T. J. Peake, Road Surveyor to the Rural District Council, who gave me great assistance in the management of the outbreak, Mr. Storey being at the time away on leave of absence.

On Mr. Storey's return, I requested him to make a special inspection of the Township of Willaston, and the adjacent portion of the Township of Wistaston. This he did, with the result that a very great improvement has been made in the sanitary condition of these Townships.

(c) **PUERPERAL FEVER**.—Only one case of this disease was reported. It occurred in January, at Alvaston. It did not occur in the practice of a registered midwife. The case unfortunately was a very virulent one, and proved fatal in a few days.

(d) **Enteric Fever**.—Seven cases of this disease were reported during the year. On January 11th, the case of a child, aged $4\frac{1}{2}$ years was reported from Shavington. I was not able to account for the infection in this case. On March 27th, a case was reported at a farm-house, at Buerton. In this case, the person affected probably was infected in Staffordshire, whence she had come to Buerton a few days before the onset of the illness. On August 27th, a case was reported from the Men's Hospital, at the Workhouse, Worleston. He was ill when taken into the Workhouse, and had probably been infected whilst on tramp. On September 4th, a case, that of a man, aged 38 years, was reported from Haslington. He was probably infected in Crewe. He was moved to the Crewe Isolation Hospital. On September 9th, a case, that of a man, aged 30, was reported from Willaston. I cannot account for the infection in this case. It is noteworthy, that seven days before his notification as suffering from Enteric Fever, he was notified as suffering from Diphtheria. On September 12th, another case was reported at Willaston, that of a man, aged 42, who was probably infected in Crewe. On November 3rd, a case was reported from Buerton, at a house close to the farm where the case occurred in January. It was that of a man, aged 47. He may have been infected at Buerton, but was most probably infected elsewhere, he being in the habit of attending markets in various towns. He was removed to the Isolation Hospital, and made a good recovery.

Sanitary Administration.—The same methods as in former years were adopted in dealing with infectious outbreaks during the first three quarters of the year. During the last quarter, a number of cases were removed to the Isolation Hospital. In cases where removal of a patient has taken place, the Inspector has proceeded without delay to the house, and carefully disinfected the rooms, whilst all unwashable articles have been removed to the Hospital for disinfection. A report of the Inspector's work during the year is appended to this report.

Schools.—The Schools at Acton, Bridgemere, Buerton, Burleydam, Haslington, Spurstow, Weston, and Wistaston, were closed for short periods during the year on account of infectious outbreaks. As I have on former occasions reported, many of the older Schools of the District are far from satisfactory from a Sanitary point of view. My ten years' experience of this District teaches me, that practically all the epidemics among children with which we have to deal, have the public Elementary School as their centre of dissemination.

Isolation.—The Smallpox Hospital, at Ravensmoor, has been kept in readiness during the year, but has not been required. The new Isolation Hospital, at Worleston, was opened on October 11th,

1906. Eight cases of infectious disease were treated there during the months of October, November, and December. They were as follows:—

Enteric Fever.....	1 case
Scarlet Fever	6 cases
Diphtheria	1 case

The Hospital has certainly justified its existence, and is an important addition to the sanitary machinery of this District.

Two cases were isolated at the Crewe Hospital before the Nantwich Hospital was opened. They were:—one case of Scarlet Fever, and one case of Enteric Fever.

Disinfection.—Disinfection of rooms has been conducted as in former years, reliance being chiefly placed on the thorough washing of walls, ceiling, and floor, with a reliable disinfectant. The disinfecting apparatus at the Isolation Hospital is now available for the proper disinfection of unboilable articles, and has been used for this purpose whenever necessary.

Rivers Pollution.—I have no progress to report in the matter of the pollution of the River Weaver by sewage. The streams entering the District from Staffordshire, are still polluted by mine water and slack-washing.

Drainage.—A scheme for the sewerage of Haslington is now before the Local Government Board, and the Council is seriously considering the sewerage of Willaston. Some difficulty is experienced at Audlem in getting owners to couple up with the sewer already laid for a portion of the village, and various complaints have been made of nuisance from defects in the old drains serving the rest of the village. Shavington and Broad Lane (Stapeley) still call for attention.

Water Supply.—Full information on this head is given in the Surveyor's report appended hereto.

Slaughter-houses.—These have had careful attention during the year. As before reported, the Rural District Council has Urban Powers with regard to Slaughter-houses in every Township of the District.

Diseased Meat.—In August, I seized the carcase of an emaciated tuberculous cow in a slaughter-house, at Willaston. I subsequently prosecuted the butcher who owned the carcase, and he was fined five pounds and costs.

On November 14th, about 3-30 a.m., I seized two tuberculous carcasses in a slaughter-house, at Church Coppenhall. Subsequently, I prosecuted the owner, who was fined ten pounds and costs.

In the hope of preventing the sale of diseased meat, I have made it widely known that myself and the Inspector are willing to examine doubtful carcasses. Our services have been largely called upon during the year. I am convinced that my action in seriously endeavouring to stop the terrible traffic in diseased meat has been instrumental in lessening considerably the volume of the traffic in this District. If only the large towns, whose interests we chiefly serve in stopping this traffic, would make it known that, if diseased meat is found in their markets, they will, without exception, prosecute the owner, the trade in meat would soon be dead. The "approval" system now adopted in Manchester and other towns, is, in my opinion, a distinct invitation to "slink" butchers to send doubtful and diseased meat up in the hope that it may be passed for food. The butcher stands to lose nothing except railway carriage if the meat is condemned, and, if it is passed, stands to make a large profit.

Anthrax.—A few cases in cattle and sheep have been reported. There has been no case of infection of human beings.

Scavenging.—The Inspector has reported favourably as a general rule on the work of the contractors at Audlem, Willaston, Haslington, and Church Coppenhall, where contracts are in existence.

Midwives.—The midwives of the District have been visited periodically, and careful instructions have been given them as to the conduct of their work. Nineteen women were on the register during the year 1906. No case of puerperal fever was reported as occurring in the practice of a registered midwife. I am sure that the Midwives' Act is having a good effect.

Factories and Workshops.—These places have been systematically kept under supervision. Outworkers' premises have also been carefully inspected. Some difficulty has been experienced with one factory owner in getting a proper list of outworkers at the times when such lists are due. The outworkers of this District are practically all employed in making garments, and it is highly important that such articles should be made in sanitary places.

Housing of the Working Classes.—Some improvement in the supply of cottages for the working classes is noticeable. A number of new cottages have been built in the more Urban parts of the District, but in many of the more Rural parts good cottages are badly needed. Some estate-owners have done good work in this matter, but much still needs doing.

Sanatorium for Consumption.—A report on this question was presented by myself at the request of the Council during the year. The Council passed a resolution in favour of the County Council's scheme with slight modification. It must be acknowledged that it is pitiable to see persons cut off in the prime of life by this disease, when we know that such lives could in many cases be saved, if the proper means of treatment were only available, as in so many cases they are not. The small addition to the rates which such a Sanatorium would entail is not worthy of consideration in comparison with the saving of valuable lives, and further in many cases the saving of a life would mean a great saving of the rates, for, if the bread-winner is carried off, in many cases his wife and children become practically a permanent burden upon the community. I trust that the scheme will be worked out to a proper conclusion.

Exposure of an Infected Person.—A child belonging to the Rural District was exposed at the Nantwich Agricultural Show whilst in an infectious condition, the result of Scarlet Fever. The parent was prosecuted by the Urban District Council of Nantwich and fined heavily.

Milk.—The recent report of the Royal Commission on Tuberculosis, which makes it clear that tuberculous milk is a source of great danger to the consumer, makes it more than ever important that the milk supply of this District should be under very careful supervision. It will almost certainly make the large towns more vigilant than ever in the testing of milk for this disease. The Dairies and Cowsheds of the District have had due supervision during the year, and considerable improvements are to be noted. It is to be desired that greater attention should be given than is the case at present to the cleanliness of the hands of milkers, and of the udders of cattle when being milked.

Bacteriological Diagnosis.—The District has for several years had the advantage of being able to have specimens examined bacteriologically at the Public Health Laboratory in Manchester. These facilities have been of the greatest service on several occasions during the year.

Antitoxin for Diphtheria.—The Council have for several years supplied Antitoxin for the gratuitous treatment of Diphtheria among the poor. This has been of great advantage during the year.

The Statistical Tables required by the Local Government Board and the Home Office are attached hereto, as also are the reports of the Surveyor, Inspector of Canal Boats and of Dairies and Cowsheds, and that of the Inspector of Nuisances.

My thanks are due to these Officers for their ready co-operation in sanitary work of all kinds, and to the Police of the Nantwich and Crewe divisions for their most valuable assistance and co-operation in my efforts to prevent the sale of diseased meat.

R. T. TURNER, M.D.,

MEDICAL OFFICER OF HEALTH.

Nantwich,

February 22nd, 1907.

TABLE 1.—NANTWICH RURAL DISTRICT. FOR WHOLE DISTRICT.

YEAR.	Population estimated to Middle of each Year.	Births.		Total Deaths regist'd in the District				Total deaths in Public Institu- tions in the District	Deaths of Non- residents regist'd in Public Institu- tions in the District	De'ths of residents regist'd in Public Institu- tions beyond the District	Nett Deaths at all ages belonging to the District	
				Under One Year.		At all ages.					Number	Rate*
		Number	Rate*	Number	Rate*	Number	Rate*					
1896	23382	639	27·3	77	123	...	...	...	...	...	336	14·3
1897	23483	653	27·8	90	137	...	...	...	...	...	379	15·9
1898	23580	613	25·9	64	104	...	...	...	...	...	344	14·1
1899	23777	609	25·6	68	112	...	...	...	...	..	355	14·2
1900	23777	597	25·1	56	94	...	...	...	...	...	369	15·5
1901	23200	608	26·2	54	88	...	...	...	...	...	295	12·7
1902	23230	611	26·3	56	91	356	15·3	35	27	9	338	14·1
1903	23268	604	25·9	53	87	291	12·5	30	26	5	270	11·6
1904	23304	651	27·9	59	90	304	13·0	25	21	11	294	12·6
1905	23376	589	25·1	52	88	303	12·9	17	26	8	285	12·1
Averages for years 1896-1905.	23437	617	26·3	62	101	313	13·4	27	25	8	326	13·8
1906	23612	645	27·3	67	103	385	16·3	62	47	0	336	14·2

*Rates in Column 4, 8, and 13 calculated per 1,000 of estimated population

Area of District in acres (exclusive of area covered by water), 98,458.

Total population at all ages	23,196	} At Census of 1901.
Number of inhabited houses	...	...	4,964
Average number of persons per house	...	...	4.9

TABLE II.—NANTWICH RURAL DISTRICT. SUB-DISTRICTS.

NAMES OF LOCALITIES	1. CREWE.				2. NANTWICH.				3. BUNBURY.				4. WRENBURY.			
YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
1896	11141	315	146	41	3538	78	66	9	3105	76	51	7	5597	170	71	20
1897	11248	315	171	55	3538	95	82	12	3105	93	45	8	5597	150	81	15
1898	11340	311	161	35	3538	90	64	8	3105	80	53	5	5597	132	66	16
1899	11547	308	163	40	3538	87	78	14	3105	99	49	6	5597	115	65	8
1900	11547	313	173	22	3538	79	58	12	3105	90	61	9	4643	115	77	13
1901	10984	312	130	25	3468	83	45	8	4059	94	53	12	4622	122	54	9
1902	11028	303	171	28	3468	82	52	13	4122	101	50	8	4622	125	65	7
1903	11056	320	120	30	3468	82	56	7	4122	81	39	6	4622	121	55	10
1904	11092	325	144	37	3468	84	51	15	4122	99	46	5	4622	143	53	2
1905	11164	307	144	30	3468	76	35	6	4122	85	49	7	4622	121	57	9
Averages of years 1896-1905.	11214	312	152	34	3503	83	58	10	3607	89	49	7	5014	131	64	10
1906	11400	338	164	38	3468	90	51	4	4122	103	56	12	4622	114	65	13

TABLE III.—NANTWICH RURAL DISTRICT. CASES OF INFECTIOUS DISEASE NOTIFIED IN 1906.

NOTIFIABLE DISEASE.	Cases Notified in Whole District.							Total cases notified in each locality.				No. of cases removed to Hospital from each locality.			
	At all Ages	AT AGES—YEARS						Crewe	Nantwich	Bunbury	Wrenbury	Crewe	Nantwich	Bunbury	Wrenbury
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards								
Diphtheria	41	...	4	27	...	10	...	41	...	...	...	1	...	...	...
Erysipelas	13	...	...	3	1	6	3	8	4	1	...	...	...	...	...
Scarlet Fever	39	1	16	18	2	2	...	25	3	4	7	6	...	...	...
Enteric Fever.....	7	...	1	...	1	5	...	4	1	...	2	1	...	...	1
Puerperal Fever.....	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...
TOTALS	101	1	21	48	4	24	3	78	9	5	9	8	...	...	1

Isolation Hospitals—Worleston (for Scarlet Fever, Diphtheria, and Enteric Fever); Ravensmoor (for Smallpox).

TABLE IV.—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1906.

CAUSES OF DEATH.	Deaths in or belonging to whole District, at subjoined ages.							Deaths in or belonging to localities (AT ALL AGES)				Total Deaths in Public Institutions in the District
	All Ages	Under 1 Year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Crewe	Nantwich	Bunbury	Wrenbury	
Scarlet Fever	1	...	1	...	...	...	...	1	...	...	...	1
Whooping Cough	10	6	4	...	...	...	...	2	...	1	7	...
Diphtheria and Membranous Croup..	3	...	...	1	...	2	...	3	...	...	...	...
Enteric Fever.....	2	...	1	...	1	...	...	1	...	...	1	1
Diarrhœa.....	14	8	3	1	...	2	...	8	2	1	3	4
Puerperal Fever.....	1	...	...	...	...	1	...	1	...	...	...	...
Erysipelas	1	1	...	...	...	...	...	1	...	...	...	...
Phthisis (Pulmonary Tuberculosis)...	17	...	...	1	6	9	1	7	2	6	2	2
Other Tubercular Diseases	6	1	1	2	1	1	...	4	...	1	1	2
Cancer, malignant disease.....	32	...	1	...	...	12	19	12	5	8	7	4
Bronchitis	20	2	2	1	...	3	12	10	6	2	2	8
Pneumonia	23	7	4	...	2	3	7	11	3	3	6	1
Other diseases of respiratory organs	4	1	1	1	...	...	1	3	...	...	1	2
Alcoholism. Cirrhosis of Liver	6	...	...	...	...	4	2	4	...	1	1	1
Venereal diseases	1	1	...	...	...	...	...	...	1	...	...	2
Premature Birth	14	14	...	...	...	...	...	9	...	5	...	...
Diseases and accidents of parturition	2	...	...	...	...	2	...	2	...	...	...	...
Heart Diseases	32	...	1	1	1	13	16	13	6	4	9	10
Accidents	10	...	2	1	3	2	2	4	2	2	2	...
Suicides	1	...	...	...	...	1	...	...	...	...	1	...
All other causes.....	136	26	5	6	2	26	71	68	24	22	22	24
ALL CAUSES.....	336	67	26	15	16	81	131	164	51	56	65	62

The Institutions taken into account for the purposes of these Tables are the Nantwich Union's Men's and Women's Hospitals, and the Nantwich Joint Hospital Board's Isolation Hospital, Worleston.

The Union Workhouse is partly within and partly without the District, but the Male and Female Hospitals are both within the Rural District.

TABLE V.—NANTWICH RURAL DISTRICT. INFANTILE MORTALITY DURING THE YEAR 1906.
DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

	Under 1 Week	1—2 Weeks	2—3 Weeks	3—4 Weeks	Total under 1 Month	1—2 Months	2—3 Months	3—4 Months	4—5 Months	5—6 Months	6—7 Months	7—8 Months	8—9 Months	9—10 Mths.	10—11 Mtns.	11—12 Mths.	Total Deaths under One Year
All Causes } Certified.....	21	3	4	2	30	5	8	5	4	4	1	1	1	4	2	2	67
Uncertified.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough.....	...	...	1	...	1	...	1	...	1	...	...	1	...	1	...	1	6
Diarrhoea, all forms.....	...	1	...	...	1	...	...	...	1	...	1	...	...	...	...	...	6
Enteritis, Muco-enteritis, Gastro-enteritis...	...	...	...	...	...	3	1	...	...	...	...	...	...	1	...	...	2
Premature Birth	14	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	14
Congenital Defects	1	1	...	...	2	...	...	...	1	...	...	...	...	...	...	...	2
Want of Breast-milk Starvation.....	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Atrophy, Debility, Marasmus.....	5	...	2	...	7	...	2	4	1	...	...	...	...	...	...	...	14
Tuberculous Meningitis .....	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Erysipelas .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Syphilis .....	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Meningitis (<i>not Tuberculous</i>) .....	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Convulsions	1	1	1	1	4	1	1	1	...	1	...	...	...	...	...	...	6
Bronchitis .....	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	3
Pneumonia .....	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2
Other Causes.....	...	...	...	...	...	...	2	...	...	2	...	...	1	...	2	...	7
	21	3	4	2	30	5	8	5	4	4	1	1	1	4	2	2	67

Population estimated to middle of 1906—23,612.

Births in the year { legitimate 608.
 illegitimate 37.

Deaths in the year of { legitimate infants—61
 illegitimate infants—6.

Deaths from all causes at all ages—336.

NANTWICH RURAL DISTRICT.

Factories, Workshops, Laundries, Workplaces, and Homework.

1—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTOR OR INSPECTOR OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	10	...	...
WORKSHOPS (Including Workshop Laundries.)	180	7	...
TOTAL	190	7	...

2—DEFECTS FOUND.

PARTICULARS.	Number of Defects.			Number of Prosecut'ns
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts:—</i>				
Want of Cleanliness.....	7	7	...	...
Sanitary accommodation unsuitable or defective	1	...	...	...
TOTAL	8	7	...	...

3—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.				Number of Inspections of Outworkers' premises.
	Lists received from Employers—twice in the year.		Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	
	Lists.	Outworkers.			
Wearing Apparel—Making, etc.	4	220	47	8	234

4—Registered Workshops**5—OTHER MATTERS.**

Workshops on Register (section 132) at end of Year	Number.	Class.	Number.
Workshops	34	Matters notified to H.M. Inspector of Factories	1
Bakehouses.....	11		
Total number of Workshops on Register	45		

SURVEYOR'S REPORT, 1906.

WATER SUPPLY.—There have been only three short additional mains laid in the Rural District during 1906, namely:— 78 yards in Willaston, 555 yards in Haslington, and 137 yards in Stapeley, making a total of 770 yards for the year. This amount if added to the length of mains laid prior to 1906 will make a total of 278,311 yards, or $158\frac{1}{8}$ miles of mains laid in the Rural District. Mains laid by private owners prior to 1901 have not been included.

Seventy-two additional houses have been supplied with water from the Council's mains during the past year, making a total of 4,182 houses supplied by the mains in the Rural District since 1879.

The consumption of water throughout the whole District in 1906 has been 69,072,000 gallons, and in addition to this 1,350,000 gallons have been supplied to Bickley, for the Malpas Rural District Council. The consumption of water per house per day for 1906 was 56·2 gallons, and the consumption per head of population per day was 10·8 gallons.

The pressures on the mains throughout the District have been generally satisfactory, except in Shavington and to some extent in Willaston, and an auxiliary main has been arranged for from Basford Hall Bridge to remedy these complaints.

There are projected waterworks in the townships of Brindley, Faddiley, Burland, etc.

The result of putting meters on the farms and large houses in Alpraham has shewn that it is quite possible to supply a township without financial danger, even for trade purposes, and without hardship to the consumers. The consumption of water for the 107 houses in Alpraham not metered was only 25 gallons per house per day for the first quarter after metering, and this has been practically continued for the quarters since that date, and the total consumption for the whole Township was under 50 gallons per house per day, which has also been continued, thus proving what I have always contended that meters while inducing care need not cause any hardship. The chief difficulty in fact is carelessness and waste, and the Council, I think, may now proceed to further extensions without being afraid of the results, providing the same means are taken to prevent waste as those adopted in Alpraham.

The Stapeley Waterworks are in good order, but the same remarks as mentioned in my report for 1905 will again be applicable to these works. An additional main has been laid in Stapeley to supplement from the upper mains, any shortage of water, whenever it may in seasons of drought be necessary to do so.

SEWERAGE.—A distinct advance in the question of sewerage has been made in the Rural District during the past year. Plans and estimates for the sewerage of Haslington have been got out and these have been forwarded to the Local Government Board. A scheme of sewerage has also been proposed for Willaston and seems to have met with some favour and probably will soon be on its way to London also. If these two schemes make satisfactory progress, a very distinct step will have been taken in the question of sewerage, which has now hung fire for many years.

PUBLIC LIGHTING.—The public lighting of the townships of Andlem, Crewe, Acton, Willaston, and Shavington has been duly carried out. Shavington-cum-Gresty has repented of its veto upon lighting, and the Township is now again lighted, with the addition of two gas-lamps fitted with Kern patent burners, erected in Gresty Road. Kern burners have also been fitted to the lamps in the Crewe Green Road, Crewe.

FACTORIES.—One factory has been completed during the year, and one workshop erected. Both are satisfactory.

NEW BUILDINGS.—Plans for 91 New Buildings in the District were passed by the Council in 1906 as follows:—

New Houses	...	...	...	...	...	...	67
New Outbuildings	...	...	...	...	...	...	8
Alterations and Additions	...	...	...	...	...	...	12
Schools and public buildings	...	...	...	...	...	...	3
New Factories	...	...	...	...	...	...	1
Total...	...	...	...	...	...	...	91

which makes a total of 2,658 plans for New Buildings sanctioned within the Rural District since these Urban powers were first obtained in 1875, as follows:—

Audlem	...	...	...	...	...	...	150
Shavington	...	...	...	...	...	...	285
Bunbury	...	...	...	...	...	...	101
Willaston	...	...	...	...	...	...	313
Haslington...	...	...	...	...	...	...	342
Church Coppenhall	...	...	...	...	...	...	697
Other Townships	...	...	...	...	...	...	770
Total...	...	...	...	...	...	...	2,658

The inspection of all new buildings is necessarily included.

COWSHEDS AND DAIRIES.—The re-inspection of cowsheds and dairies, referred to in previous reports, has been continued during the past year, and although the progress has been slow, still it has been substantial, and it must be remembered that more than ordinary difficulties are met with in carrying out this work. Landlords are not obliged to make the alterations, and tenants, except under exceptional circumstances, can hardly be expected to do so. It is however much to the credit of the owners that in the interests of their tenants they have to a great extent recognised this duty, and on the estates of Mr. Loyd in Minshull Vernon, Col. France-Hayhurst in Leighton, Lord Combermere, Lord Cholmondeley, Sir Delves Broughton, Lord Crewe, Captain Walthall, Mr. Starkey, and others, very substantial progress has been made. Every application for alterations has not been immediately sanctioned by the owner, but he is always willing to consider such applications and decide upon them on their merits. We have had one or two recent applications for registration which would necessitate alterations of certain cowsheds on the estates of Lord Crewe, Lord Combermere, Sir Delves Broughton and others. Of course it is very easy to make an application to sell milk, but an owner, however willing, hardly likes these fresh applications coming in when he thinks he is getting to the end of his obligations.

While I am glad to be able to speak very favourably of the efforts being made to comply with the law, I feel that in many cases where there is no refusal to carry out the work I am put off with promises which are not carried into effect. It is quite evident that promises alone will hardly comply with the requirements of an Act of Parliament. I can quite understand some unwillingness on the part of the Council to take legal action against their agricultural brethren for breaches of the law which do not seem to be altogether their making, but the carrying out of these Regulations is so very necessary in the interests of the farmers themselves and also for the public health, that I am afraid there must come a time very shortly when promises cannot be held to be a valuable commodity, and nothing but a satisfactory compliance with the law can avail to prevent legal action.

During the year there have been 73 re-inspections of Cowsheds and Dairies. In 38 cases the necessary improvements required were found to have been carried out; in 13 cases some improvements had been made; in 13 cases nothing had been done, but promises had been received to carry out the work; four cow-keepers have ceased selling milk, and five have been taken off the Register.

A very considerable amount of work has taken place in connection with correspondence with different owners and tenants, as to alterations in connection with their cowsheds and dairies, and although this cannot be set forth fully in this report, I hope it will bear good fruit in the future, and I think it will, as I know that there are many cowsheds that have been altered in accordance with the law which are not here detailed, not having come up yet in the area of re-inspection.

There are at present 351 names on the Register, nine having been added in 1906 and sixteen taken off through various causes. The whole of the Dairies and Cowsheds in the District have been inspected once, many twice, and some three or four times. Notices have been served on tenants where required, and every endeavour will be made to procure the necessary alterations required by the Act, and if this cannot be accomplished the names of those failing to comply will have again to be sent in to the Council.

CANAL BOATS.—A copy of the Annual Report to the Local Government Board is attached to this report

LETTERS.—Eight hundred and twenty-three letters have been written during the year.

February 13th, 1907.

J. ALDERSEY DAVENPORT,

ENGINEER AND SURVEYOR.

Inspections under the Canal Boats Acts for the year 1906.

The inspection of boats on the Canals during the year 1906 has, like that of the previous year, continued of a satisfactory nature.

Fifty-two boats have been fully inspected during the year, and the particulars journalized. Forty boats entirely conformed to the laws and regulations, and there were fourteen infringements on the remaining twelve boats.

There was an absence of certificate in one case (Peel) which was due to a change in the captaincy of the boat; on a second inspection, the certificate was found to have been replaced. There were no contraventions under the heads of "Marking," "Overcrowding," "Separation of Sexes," "Cleanliness," "Ventilation." There were three boats which required painting, namely "Ruth," "Annie," and "Olga." There were no complaints under the heads of "Provision of Water-cask," "Removal of Bilge-water," "Notification of Infectious Disease," or "Admittance of Inspector." No legal proceedings have been taken during the year.

In all cases, complaints in connection with the Regulations have been brought before the owners, and satisfactory replies have been received; where boats come under re-inspection, these promises have been found to have been carried out. The Shropshire U.R. & Canal Company have continued, as hitherto, to render every possible assistance to the officials in the carrying out of the Regulations under the Acts.

On board one boat, the "Frolic," there were three cases of scarlet fever, all being children. The boat was isolated and inspected by the Medical Officer of Health, and subsequently disinfected and allowed to proceed on his certificate.

There were thirty-four women on the fifty-two boats inspected, and fifty-one children, twenty being children between the ages of five and twelve years, and thirty-one being children of five years of age and under. On nine boats there were women and no children, and on twenty-three boats there were women and children, and on twenty boats there were men only on board. Twenty-seven boats were the only homes of their crews, and twenty-five captains had homes apart from their boats.

It is pleasant to make a report so satisfactory in nature, in connection with the canals in this District, but while there is a general disposition amongst owners to carry out the Regulations under the law, it must be admitted that the preponderating influence of the Shropshire U.R. & Canal Company very much assists in the attainment of these results.

J. ALDERSEY DAVENPORT,

Inspector under the Canal Boats Acts.

REPORT OF INSPECTOR OF NUISANCES, FOR 1906.

I beg to submit a Summary of the work done by the Inspector of Nuisances during the past year.

The District has been systematically inspected, and the results of the inspections duly recorded, in books kept for the purpose.

Statutory Notices.—Forty-three statutory notices were served upon owners and occupiers of property dealing with Nuisances, and in every instance (with about three exceptions) steps were taken to abate the nuisance complained of.

A large number of informal notices requiring the abatement of nuisances were served on persons responsible for their abatement. In cases where the notices were ignored, they were brought before the Council, and formal notices served. Further action was not required.

Special Report.—In accordance with the instructions of your Council, I made a complete inspection of the whole of the dwelling-houses in the village of Willaston, and a part of the township of Wistaston, and presented a special report, a copy of which, by your instructions, was sent to the Local Government Board. The structural defects detected in the course of my inspections were informally brought before the notice of the respective owners, and suggestions made for their rectification; in each case they were carried out. I am pleased to be able to report that the sanitary condition of the village of Willaston during the past twelve months has been much improved.

The *desideratum* for the village is a sewerage system.

Complaints received.—A number of complaints of nuisances have been made to me, some few were unfounded, but the majority were of matters requiring attention. Some have been abated, but others still require attention.

Pollution of Ditches.—The pollution of ditches in Broad Lane by sewage has been a serious cause of complaint. At a meeting of the Sanitary Committee held on the 19th of March, 1904, I presented a special report on the condition of the ditches in question, and stated therein that, in my opinion, the only satisfactory—and most economical—solution of the problem of sewage disposal in Broad Lane, was to arrange with the Nantwich Urban District Council for it to be discharged into the Sewer belonging to that Authority. I have nothing new to say on this subject.

Drainage.—New drainage systems have been provided in connection with four farmsteads situate in various parts of your District.

Sewage Treatment.—Two filter beds and septic tanks, each bed capable of dealing with 1,000 gallons of sewage per diem, have been constructed in accordance with plans, etc., prepared by me, one at Mr. Cookson's Farm, Spurstow, the other at the Baddiley Rectory. I am informed that the filter beds, etc., are working satisfactorily.

Factory and Workshops Act.—The workshops and bakehouses in your District have been periodically visited. Informal notices have been served upon a number of occupants requiring them to limewash the premises in their occupation. There are no underground bakehouses in your District.

Offensive Trades.—The tripe-dressing shop, at Haslington, which comes under this heading, has been frequently visited during the year, with a view of examining the meat as to its fitness for human food. I have always found the premises where the business is carried on in a fair condition.

Slaughter-houses.—The slaughter-houses have been regularly inspected, and improvements made in two of them. One slaughter-house licence was renewed, and three knackers' licences granted to applicants. A number of carcasses, which were examined by request and found to be diseased and unfit for human food, were voluntarily destroyed by the persons that had dressed them.

Cesspit Privies.—Twelve insanitary cesspit privies have been abolished during the year, and pail closets substituted in lieu thereof.

Ashpit Accommodation.—Proper ashpits have been provided at fifty-six dwelling-houses, which were without such provision for the depositing of house refuse.

Paving of Yards.—The kitchen yards belonging to seventeen dwelling-houses and three farm-houses have been re-paved, properly graded, and drained.

Overcrowding.—Only one case of overcrowding has been dealt with during the year.

Infectious Diseases.—All infectious diseases reported have had prompt attention. Precaution papers and disinfectants were liberally supplied in each case, and the rooms, bedding, etc., properly disinfected, and all necessary measures taken to stamp out the disease.

Water Analysis.—Three samples of water were submitted for analysis—two were certified as unfit for domestic use, the other sample was certified as being a pure but hard water, from lime and magnesia salts. The Analyst stated in reference to this sample, that whilst it was unfit for a public supply, it might be used by private people, if they did not object to its excessive hardness. Twenty-two water certificates have been granted in accordance with the Public Health (Water) Act, 1878.

Shallow Wells.—During the year I have many times been requested by tenants to make an inspection of shallow wells, from which they derive their domestic water supply.

The wells in most cases were found to be defective in construction. All water from surface wells is not *ipso facto* impure, but as such are not as a rule sunk at a sufficient distance from the source of impurities, but rather in a place near to the house convenient for supply, and therefore in proximity to such dangers, the chances of their containing pure water are very small. Large glazed earthenware pipes of three feet diameter, closely jointed with cement and filled in behind with concrete, make a clean and safe lining to a small-sized well. As many wells get sour and impure if allowed to go too long without cleaning, this should be attended to every two or three years.

There are a few cases in your district where the rain-water from the roofs of buildings is used for drinking purposes. At some of these places pigeons are kept, their droppings making, as can be easily imagined, the roofs and water-spouts very foul, and more or less unsuitable for the purpose of collecting pure rain-water. I have suggested in one or two cases where a special desire was expressed to obtain a large quantity of rain-water, and where there was no special collecting surface, that it might be possible to attain this object by laying a layer of concrete for the purpose over a suitable piece of ground, taking every precaution against any impure matters reaching the part, or being washed into the storage tank. I have always warned users of rain-water against the use of lead pipes for its conveyance.

Scavenging.—The number of closets, etc., scavenged by public contract is as follows:—Audlem 147, Church Coppenhall 58, Haslington 274, Shavington-cum-Gresty 226, Willaston 558, and Wistaston 61. These figures are up-to-date.

Petroleum Acts.—Licences were granted to five applicants to store Petrol after your Council had been satisfied that the places proposed to be used as store-rooms were in accordance with the regulations issued by the Secretary of State.

JOHN STOREY.

February 18th, 1907.

